EX-48052
2S RS422/485 Mini PCIe Card

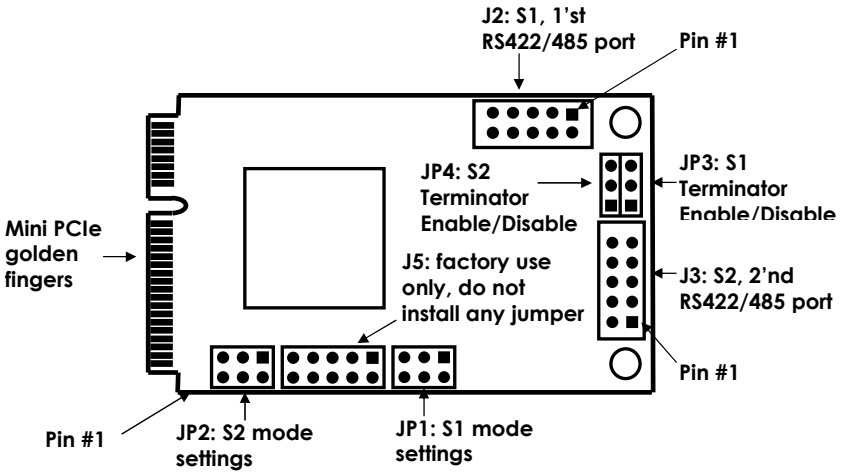
1. Introduction

Congratulation on your purchasing this high performance Mini PCI Express (Mini PCIe) RS422/485 serial card. The card is high speed PCI Express bus based and plug-and-play compliant. Both its enhanced serial ports (256-byte deep FIFO) are jumper-configurable for RS422, 4-wire RS485 and 2-wire RS485 modes.

Features:

- ✓ Full x1 Mini PCI Express Throughput, 250Mbytes/sec
- ✓ Fully Compliant with PCI Express Base Specifications, Revision 1.1
- ✓ Supports RS485 Auto Transceiver Turn Around by Unique Featured ATTA™ Hardware
- ✓ Supports 2 DB9-male Connectors over Flat Cables
- ✓ Support 4-wire RS422/485 and 2-wire RS485 Modes
- ✓ Supports RS422/485 Speed up to 921.6Kpbs
- ✓ 9-bit Data Framing, as well as 5,6,7 and 8bits
- ✓ Supports Win2000, XP, 2003, 2008, Vista, Win 7 and Linux

2. Board Layout

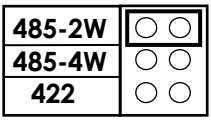
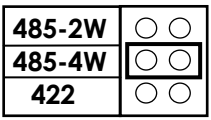
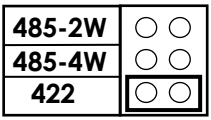


3. Jumper Settings

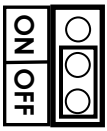
There are 2 sets of the jumpers to set the settings for port 1 (S1) and port 2 (S2) respectively.

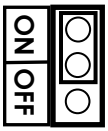
- **Mode Selection Jumper:** JP1 for S1, JP2 for S2
- **Termination Resistor Enable/Disable Jumper:** JP3 for S1, JP4 for S2

1. Mode Settings:

JP1 (for S1) JP2 (for S2)	Description
	**RS485 2-wire mode (Default)**
	**RS485 4-wire mode**
	**RS422 mode**

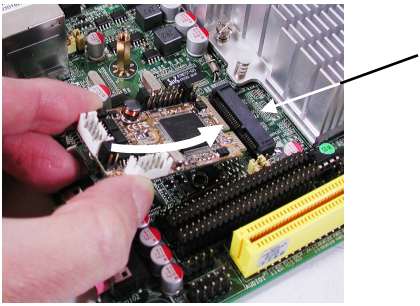
2. **Termination Resistor Enable/Disable:** This jumper enables/disables the 120 Ohm termination resistor between DATA+ and DATA- of the RS485 transceiver:

JP3 (for S1) JP4(for S2)	Description
	**Termination Resistor Disabled (Default)**

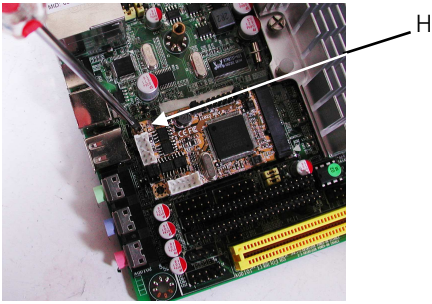
	**Termination Resistor Enabled**

4. Installing the Mini PCIe Card

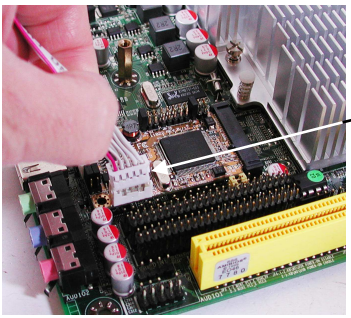
1. Remove the Mini PCIe card from its protective antistatic packaging, remove the screw holding the Mini PCIe card to the motherboard and insert the new Mini PCIe card into the socket.



2. Put the Mini PCIe card onto the motherboard and attach it with the screw.



3. Install the serial flat cables. Please mind the pin 1 position to match with the cable's red color wire.

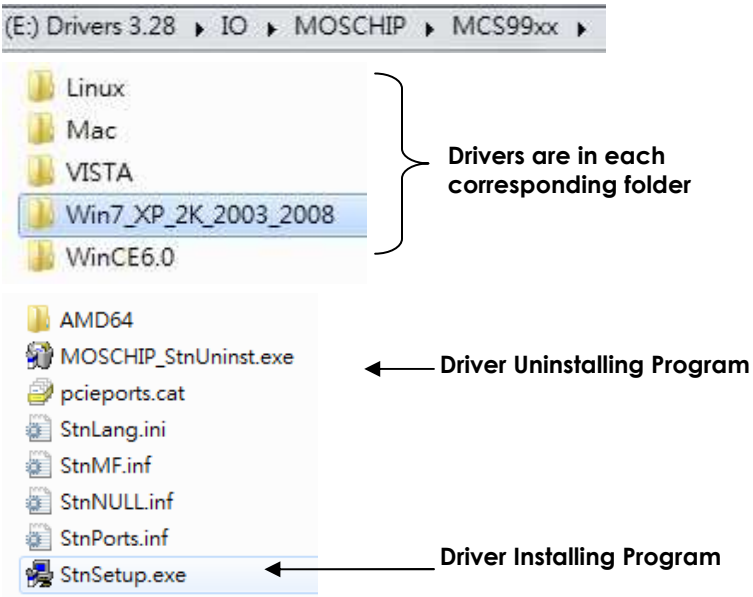


5. Software Installation

To install the Windows drivers, there are two methods, one is to run the setup utility (**StnSetup.exe**) in each corresponding folder. The other one is by the Windows' driver installation Wizard. We recommend you run the setup utility. It will be simpler. However, **PLEASE REFRESH HARDWARE OR REBOOT THE SYSTEM IN CASE YOUR DRIVER DID NOT TAKE EFFECT AFTER RUNNING THE SETUP UTILITY.**

The drivers are shipped in the following folders on the driver CD:

E:\IO\MOSCHIP\MCS99xx



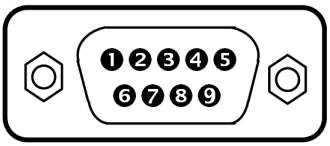
6. Uninstalling the Software Drivers

In some cases, you may want to uninstall the drivers. To remove the drivers that already installed for Windows, there are two methods:

1. **Run (double click) the uninstall program (for example MOSCHIP_StnUninst.exe)** in each Windows' folder on the supplied driver CD, it is usually in the same folder as the StnSetup.exe utility:
2. **Go to Windows' Control Panel's Add/Remove Program** to remove the drivers.

7. RS422/485 Pin Assignments and Cable Wiring

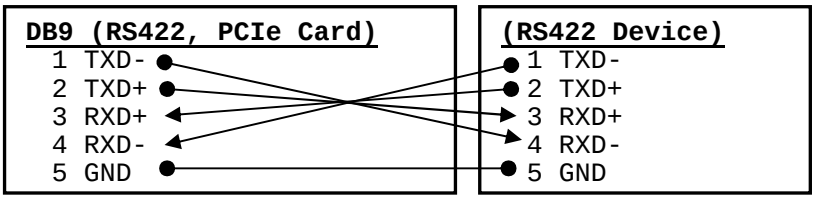
DB9-Male Pin Assignment:



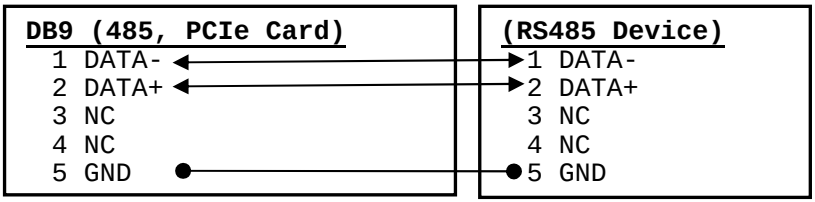
9 Pins	Signal
1	TXD- (DATA-)
2	TXD+ (DATA+)
3	RXD+
4	RXD-
5	GND
6	NC
7	NC
8	NC
9	NC

NC = No connection

RS422 Cable Wiring:



RS485 (2-wire) Cable Wiring:



8. Environmental Specifications

Power requirements: 5V DC, 450mA (max)

Operating temp.: 0 to 558C (32 to 1318F)

Operating humidity: 5 to 95% RH